

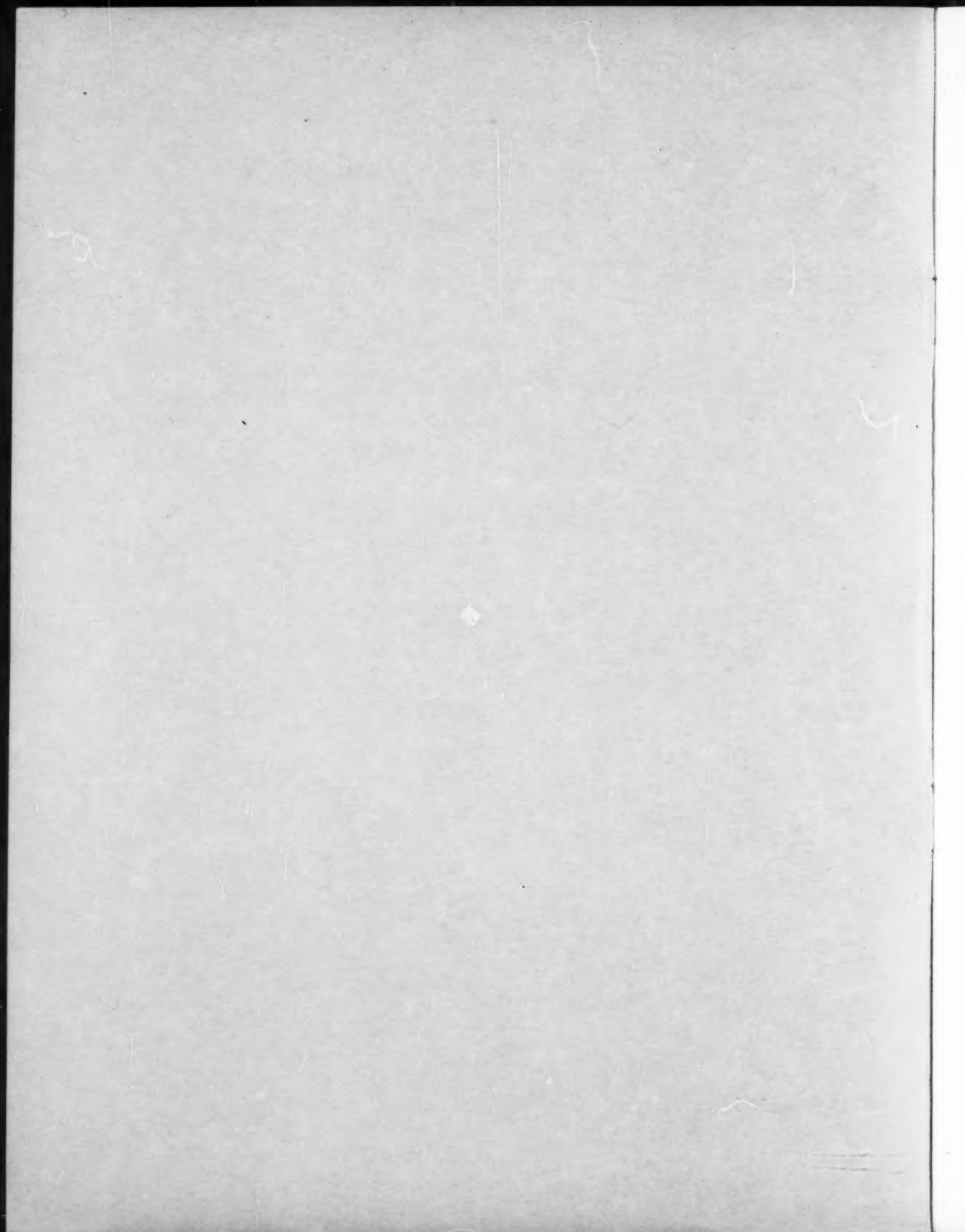
**Journal of the
South African Chemical Institute
Joernaal van die
Suid-Afrikaanse Chemiese Instituut**



INDEX — INDEKS

Volumes XVI — XX. April 1963 to October 1967

Bande XVI — XX. April 1963 tot Oktober 1967



INDEX

to the

JOURNAL OF

THE SOUTH AFRICAN CHEMICAL INSTITUTE

VOLS. XVI - XX (APRIL 1963, to OCTOBER, 1967)

SUBJECT INDEX

A

- Acetophenone, some sulphonamido-derivatives 1964, XVII, 95
- Adsorption, of aromatic hydrocarbons and haloforms. Adsorptive properties of cellulose acetate 1967, XX, 144
- Adsorption, of water vapour on silica-alumina treated with potassium chloride 1966, XIX, 123
- Adsorptive properties, of cellulose acetate. Part I. Adsorption of aliphatic alcohols 1967, XX, 11
- Alipatic alcohols, adsorption of. Adsorptive properties of cellulose acetate 1967, XX, 11
- Alkaloids, of the Leguminosae. Part II. Hofmann degradative studies on calpurnine from *Calpurnia Subdecandra* 1966, XIX, 57
- Alumina, hydrated, the effect of pH on the ion-exchange properties of, Part I. Capacity and selectivity 1966, XIX, 98
- Alumina, hydrated, the effect of pH on the ion-exchange properties of, Part II. Kinetics of exchange 1966, XIX, 108
- Amadin, the microheterogeneity of 1967, XX, 81
- Aminations of bromopyridines and bromoethoxypyridines 1964, XVII, 41
- Arsenic, cyclic compounds of, the application of lithium arsenides to the synthesis of 1964, XVII, 71
- Aromatic amines, primary complexes of mercury (II) and zinc (II) complexes with: infrared spectra and bonding 1967, XX, 113
- Aromatic hydrocarbons, and haloforms, adsorption of. Adsorptive properties of cellulose acetate 1967, XX, 114
- Arsonium salt, a novel spirocyclic 1964, XVII, 71
- Atomic absorption, determination of traces of lead in fish flour 1964, XVII, 55
- Atomic adsorption spectrometry, determination of barium and strontium in maize meal and bread flour by, after separation by ion-exchange chromatography 1967, XX, 25

B

- Barium, and strontium, determination of in maize meal and bread flour by atomic absorption spectrometry after separation by ion-exchange chromatography 1967, XX, 25
- Barium-137M, half-life of 1966, XIX, 1
- Betuligenol, and betuloside, the isolation of 1967, XX, 54
- Bromoethoxypyridines, aminations of 1964, XVII, 41
- Bromopyridines, amination of 1964, XVII, 41

C

- Calpurnine, from *Calpurnia subdecandra*, Hofmann degradative studies on 1966, XIX, 57
- Cancerous growth, potential inhibitors of, Part VI. The application of the Mannich reaction in the synthesis of nitrogen mustard derivatives 1966, XIX, 38
- Carbon dioxide, adsorption on reduced iron catalysts 1963, XVI, 15
- Cellulose acetate, adsorptive properties of. Part I. Adsorption of aliphatic alcohols 1967, XX, 11
- Cellulose acetate, adsorptive properties of. Part II. Adsorption of aromatic hydrocarbons and haloforms 1967, XX, 144
- Cellulose, (Cx-enzyme), a viscometric method for the assay of the enzyme hydrolyzing the 1,4- β glucosidic linkage in. Studies in the metabolism of fungi. Part II 1965, XVIII, 79

Chromatography, anion-exchange, a separation of scandium from yttrium, lanthanum and the rare earths by, of the sulphate complexes ..	1964, XVII, 114
Chromatography, cation-exchange, the separation of uranium from scandium, yttrium, rare earths, thorium, beryllium, magnesium, copper, manganese, iron, aluminium and other elements by ..	1963, XVI, 38
Chromatography, gas-liquid, sources of error in the experimental determination of the plate height for ..	1964, XVII, 122
Chromatography, gas, the use of, for the determination of certain column parameters ..	1964, XVII, 133
Chrome ores, and chrome refractories, a rapid and direct determination of magnesium in, with E.D.T.A. ..	1965, XVIII, 100
Chromieterse, en verwante vuurvaste materiaal, 'n vinnige en direkte bepaling van magnesium op, met E.D.T.A. ..	1965, XVIII, 100
Cobalt, cyanide complexes of, an infrared study of, on anion-exchange resins ..	1963, XVI, 1
Cold coating thicknesses, the determination of, by proton scattering ..	1965, XVIII, 61
Collagen, acid-soluble, the subunit composition of ..	1967, XX, 69
Colorimetric determination, of phosphorus in fertilizers ..	1964, XVII, 101
Column chromatographic fractionation, the purification of formol diphtheria toxoid by ..	1964, XVII, 1
Column chromatography, of the high-sulphur proteins of reduced merino wool	1967, XX, 161
Co-ordination compounds, of titanium tetrahalides with quinoline and isoquinoline ..	1967, XX, 57
Cotyledon Wallichii Harv. (kandelaarbos), the chemistry of. Part I. The isolation of betuligenol and betuloside ..	1967, XX, 54
Cucurbitaceae, bitter principles of the, Part XIV. The constitutions of Cucurbitacins G and H ..	1964, XVII, 142
Cyanocomplexes ..	1966, XIX, 62
Cyanocomplexes. Part II ..	1967, XX, 197
Cystine, and some derivatives, the oxidation of ..	1965, XVIII, 56
Cystine, hypophosphite as a reducing agent for the disulphide linkage in ..	1963, XVI, 31
Cystine, reduction by hypophosphite and ultraviolet light ..	1963, XVI, 48

D

Diels-Alder addition products, of Vitamin A esters ..	1963, XVI, 22
β -Dimethylamino-ethyl benzhydryl ether, (diphenhydramine), the spectrophotometric determination of, in a cough mixture ..	1967, XX, 194
p-Dioxan. The systems p-dioxan — sulphuric acid-water and p-dioxan-sulphuric acid-phosphoric acid-water at 25° ..	1966, XIX, 45
Diphenhydramine, (β -dimethylaminoethyl benzhydryl ether), the spectrophotometric determination of, in a cough mixture ..	1967, XX, 194
α, ω -Diphenylalkanes, p,p' — disubstituted derivatives of, diphenyl and diphenyl ether, studies on complexes and ligands ..	1967, XX, 123
Diphenyl ether, p,p' — disubstituted derivatives of, and of diphenyl and α, ω — diphenylalkanes. Studies on complexes and ligands ..	1967, XX, 123
Diphenyl, p,p' — disubstituted derivatives of, and of diphenyl ether and α, ω -diphenylalkanes, studies on complexes and ligands ..	1967, XX, 123
Disulphides, peptide-bound, reduction of by hypophosphite and ultra-violet light ..	1963, XVI, 48
Disulphides, unsymmetrical, containing cysteine — Part I. The formation of 3-carboxy-4-nitrothiophenol derivatives of cysteine and glutathione and their decomposition by alkali ..	1965, XVIII, 87

E

E.D.T.A., a rapid and direct determination of magnesium in chrome ores and chrome refractories with ..	1965, XVIII, 100
E.D.T.A., 'n vinnige en direkte bepaling van magnesium op chromieterse en verwante vuurvaste materiaal met ..	1965, XVIII, 100
Explosives, the torpedo friction test for ..	1964, XVII, 14

F

Formol diphtheria toxoid, the purification of, by column chromatographic fractionation ..	1964, XVII, 1
Fungi — Studies in the metabolism of. Part III. A viscometric method for the assay of the enzyme hydrolyzing the 1,4- β -glucosidic linkage in cellulose (Cx-Enzyme) ..	1965, XVIII, 79

G

Gas solubilities, determination of in water and some organic liquids	1964, XVII, 9
Geometrical isomerism, and stability of tetrachlorobisquinolinetitanium (IV) and tetrachlorobisquinolinetitanium (IV)	1967, XX, 61
β -Glucosidase, elatase, plant, a physicochemical study of	1967, XX, 32
β -Glucosidase, from sweet almonds, the purification of physicochemical properties of a	1964, XVII, 79
Glutathione, oxidized, hypophosphite as a reducing agent for the disulphide linkage in	1963, XVI, 31
Glycerine, natural, trace impurities in a sample of	1963, XVI, 51

H

Haloforms, and aromatic hydrocarbons, adsorption of. Adsorptive properties of cellulose acetate, Part II	1967, XX, 194
Hexamethylphosphoramide complexes, and octamethylpyrophoramide complexes of tetravalent metal chlorides	1966, XIX, 73
High resolution infrared, studies of monodeuteromethane and trideuteromethyl chloride	1966, XIX, 180
Hydrological studies, the preparation of potassium hexacyanocobaltate (III) labelled with cobalt-58 and -60 for	1965, XVIII, 1
Hypophosphite and ultraviolet light, reduction of cystine and peptide-bound disulphides by	1963, XVI, 48
Hypophosphite, as a reducing agent for the disulphide linkage in wool, cystine, and oxidized glutathione	1963, XVI, 31

I

Igneous rocks, quantitative spectrochemical analysis of some	1964, XVII, 29
Infrared spectra and bonding, studies on complexes and ligands. Part II. Complexes of mercury (II) and zinc (II) with primary aromatic amines	1967, XX, 113
Infrared study, of cyanide complexes of cobalt on anion-exchange resins	1963, XVI, 1
Inhibitors, potential, of cancerous growth. Part VI. The application of the Mannich reaction in the synthesis of nitrogen mustard derivatives	1966, XIX, 38
Instabilities, in multicomponent liquid diffusion	1966, XIX, 125
Ion exchange chromatography, the separation of uranium from other elements	1967, XX, 1
Ion exchange, kinetics of, on a weak acid resin	1967, XX, 92
Ion-exchange properties, the effect of pH on the, of hydrated alumina. Part I. Capacity and selectivity	1966, XIX, 98
Ion-exchange properties, the effect of pH on the, of hydrated alumina. Part II. Kinetics of exchange	1966, XIX, 108
Ionization constants, of monomeric molybdic acid	1963, XVI, 26
Iron catalysts, reduced, surface areas of, and carbon dioxide adsorption on	1963, XVI, 15
Iron (O) carbonyl, the determination of, in a gas stream	1964, XVII, 38
1a,2a-O-Isopropylidene-3 β -O-acetyl-4 β -cyano-tetrahydrofuran — 1a, 2a, 3 β -triol, the nuclear magnetic resonance spectrum of	1966, XIX, 49

K

Kaliumfosfaat, gesmelte, die invloed van alumina op die toestand van polymerisasie in	1966, XIX, 6
Kinetic properties, a study of the differences in some, of lactic dehydrogenase isolated from normal and neoplastic human lung tissues	1967, XX, 43
Kinetic study, a, of the decomposition of the trioxalato-manganate (III) — ion according to a polarographic method	1965, XVIII, 6
Kinetics. A method for determining the best values of three parameters in a kinetic equation containing two independent and one dependent variable	1963, XVI, 11
Kinetics of exchange, the effect of pH on the ion-exchange properties of hydrated alumina	1966, XIX, 108
Kinetics, of ion-exchange on a weak acid resin	1967, XX, 92
Kinetiese ondersoek, 'n, van die ontbinding van die trioksalamatomanganat-(III)-ioon volgens 'n polarografiese metode	1965, XVIII, 6

L

- Lactic dehydrogenase, from human lung inhibition by certain water-soluble ciliastic components of tobacco smoke 1967, XX, 103
- Lactic dehydrogenase, isolated from normal and neoplastic human lung tissues, a study of the differences in some kinetic properties of 1967, XX, 43
- Lanthionine, a column chromatographic method for the determination of 1965, XVIII, 41
- Lead, the atomic absorption determination of traces of in fish flour 1964, XVII, 55
- Leguminosae, the alkaloids of the, Part II. Hofmann degradative studies on *Calpurnia Subdecandra* 1966, XIX, 57
- Liquid diffusion, multicomponent instabilities in 1966, XIX, 125
- Lithium arsenides, the application of, to the synthesis of cyclic compounds of arsenic 1964, XVII, 71

M

- Magnesium, a rapid and direct determination of, in chrome ores and chrome refractories with E.D.T.A. 1965, XVIII, 100
- Magnesium, 'n vinnige en direkte bepaling van, op chromeitertse en verwante vuurvaste materiaal met E.D.T.A. 1965, XVIII, 100
- Magnetite, reduced, the structural promotion of 1966, XIX, 115
- Mercury (II) complexes, and zinc (II) complexes with primary aromatic amines: infra-red spectra and bonding 1967, XX, 113
- N-Methyl-L-alanine, a novel amino acid from Gifblaar, isolation and characterization of 1967, XX, 190
- 3-Methylfuran, photochemical oxidation of 1964, XVII, 149
- Molybdenum (VI), monomeric chloro-complexes of 1966, XIX, 6
- Molybdic acid, monomeric, the first protonation constant of 1964, XVII, 145
- Molybdic acid, monomeric, the ionization constants of 1963, XVI, 26
- Monodeuteromethane, high resolution infrared studies of 1966, XIX, 130
- Monodeuteromethane, the rotational fine structures of the infrared fundamentals ν_8 and ν_9 of 1967, XX, 16
- Monodeuteromethane, the rotational fine structure of the ν_2 parallel infrared band of 1966, XIX, 93

N

- Neorautanenia Isoflavanoids — Part I. The interconversion of neodulin and dehydronootenone 1965, XVIII, 21
- Neorautanenia Isoflavanoids. Part II. Neofolin and ficinin, two new furoisoflavanoids from *Neorautanenia Ficifolia* (Benth ex Harv) C.A. S.M. 1966, XIX, 24
- Neutron activation analysis, determination of vanadium in a sodium chloride base by 1967, XX, 200
- Neutronaktiveringsanalise, bepaling van vanadium in 'n natriumchloriedbasis met 1967, XX, 200
- Nitrosylruthenium, the extraction of the neutral and anionic complexes of, by long chain alkyl amines 1967, XX, 174
- Non-metallics, a universal X-ray fluorescent method for the quantitative analysis of 1965, XVIII, 71
- Nuclear magnetic resonance spectrum, of 1a, 2a-O-isopropylidene-3 β -O-acetyl-4 β -cyano-tetrahydrofuran-1a, 2a, 3 β -triol 1966, XIX, 49

O

- Ochratoxins A and B metabolites, of *Aspergillus Ochraceus* wilh, the isolation of the methyl and ethyl esters of 1967, XX, 186
- Octamethylpyrophosphoramide complexes, and hexamethylphosphoramide complexes of tetravalent metal chlorides 1966, XIX, 73
- Oxidation, of cystine and some derivatives 1965, XVIII, 56
- Oxidation, photochemical, of 3-methylfuran 1964, XVII, 149

P

- Phosphoric acid. The systems p-dioxan-sulphuric acid-water and p-dioxan-sulphuric acid — phosphoric acid at 25° 1966, XIX, 45
- Phosphorus, in fertilizers, the colorimetric determination of 1964, XVIII, 101
- Physicochemical study, of the plant β -glucosidase, elaterase 1967, XX, 32
- Polarografiese metode, 'n kinetiese ondersoek van die ontbinding van die trioksalamanganaat-(III)-ioon volgens 'n 1965, XVIII, 6

Polarographic method, a kinetic investigation of the decomposition of the trioxalato-manganate-(III)-ion according to a	1965, XVIII, 6
Polimerisasie, in gesmelte kaliumfosfaat, die invloed van alumina op die toestand van	1966, XIX, 6
Polymerisation, in condensed potassium phosphate, the influence of alumina on the degree of	1966, XIX, 6
Proteïene, die gebruik van die „lengtemodulus” by die ondersoek van die kruisbindingsdigtheid van	1963, XVI, 55
Proteins, a comparative study of the, of adult mohair, kid mohair and kemp	1967, XX, 132
Proteins, high-sulphur, the fractionation of, from reduced merino wool by column chromatography	1967, XX, 161
Proteins, insoluble, determination of the thiol content of	1965, XVIII, 52
Proteins, the use of the “length modulus” in the investigation of the cross-link density	1963, XVI, 55
Proton scattering, the determination of cold coating thicknesses by	1965, XVIII, 61
Potassium hexacyanocobaltate (III), labelled with cobalt-58 and -60, the preparation for hydrological studies	1965, XVIII, 1
Potassium phosphate, condensed, the influence of alumina on the degree of polymerisation in	1966, XIX, 6
Pyridine-1-oxide, the reaction of, with acetic anhydride	1965, XVIII, 48

R

γ -Radiolise, van 'n propanol, die relatiewe belangrikheid van die primêre ioniese prosesse	1967, XX, 149
γ -Radiolysis, of n-propanol, the relative importance of the primary ionic processes	1967, XX, 149
Rotational fine structures, of the infrared fundamentals ν_8 and ν_9 of monodeuteromethane	1967, XX, 16
Rotational fine structure, of the ν_2 parallel infrared band of monodeuteromethane	1966, XIX, 93
Rubidium compounds, purification of, from traces of caesium	1964, XVII, 138

S

Scandium, a separation of from yttrium, lanthanum and the rare earths by anion-exchange chromatography of the sulphate complexes	1964, XVII, 114
Semi-quantitative analysis, of powdered samples, a rapid method for the	1963, XVI, 5
Sianokomplekse	1966, XIX, 62
Sianokomplekse, Deel II	1967, XX, 197
Silica-alumina, the adsorption of water vapour on, treated with potassium chloride	1966, XIX, 123
Sirkonium, die bepaling van, in Suid-Afrikaanse graniete	1965, XVIII, 13
Spectrochemical analysis, quantitative, of some igneous rocks	1964, XVII, 29
Spectrographic determination, of trace elements in citrus leaves	1965, XVIII, 92
Stilbene, some sulphonamido derivatives of	1964, XVII, 95
Strontium, and barium, determination of, in maize meal and bread flour by atomic absorption spectrometry after separation by ion-exchange chromatography	1967, XX, 25
Sulphonamido-derivatives, some, of stilbene and acetophenone	1964, XVII, 95
Sulphuric acid. The systems p-dioxan-sulphuric acid-water and p-dioxan-sulphuric acid-phosphoric acid-water at 25°	1966, XIX, 45
Surface areas, of reduced iron catalysts	1963, XVI, 15

T

Tetrachlorobisisoquinolinetitanium (IV), geometrical isomerism and stability of	1967, XX, 61
Tetrachlorobisquinolinetitanium (IV), geometrical isomerism and stability of	1967, XX, 61
1,2,3,4,-Tetrahydroarsinoline, derivatives of	1964, XVII, 61
Tetravalent metal chlorides, hexamethylphosphoramide and octamethylpyrophosphoramide complexes of	1966, XIX, 73
Titanium tetrahalides, co-ordination compounds of, with quinoline and isoquinoline	1967, XX, 57
Trace elements, in citrus leaves, the spectrographic determination of	1965, XVIII, 92
Trideuteromethyl chloride, high resolution infrared studies of	1966, XIX, 130
Trioxalato-manganate-(III)-ion, a kinetic study of the decomposition of, according to a polarographic method	1965, XVIII, 6
Trioksalatomanganaat-(III)-ioon, 'n kinetiese ondersoek van die ontbinding van, volgens 'n polarografiese metode	1965, XVIII, 6

U

- Ultraviolet light and hypophosphite, reduction of cystine and peptide-bound disulphides by 1963, XVI, 48
 Ultraviolet light, the action of, on wool 1964, XVII, 44
 Uranium, the separation of, from other elements by ion-exchange chromatography 1967, XX, 1
 Uranium, the separation of, from scandium, yttrium, rare earths, thorium, beryllium, magnesium, copper, manganese, iron, aluminium and other elements by cation-exchange chromatography 1963, XVI, 38

V

- Vanadium, bepaling van, in 'n natrium-chloriedbasis met neutronaktiveringsanaliese 1967, XX, 200
 Vanadium, determination of, in a sodium chloride base by neutron activation analysis 1967, XX, 200
 Vanadium (V) oxinate, the reaction of, and ethanol in dilute concentration in benzene 1966, XIX, 85
 Virgilia oroboides gum. Part V. Periodate oxidation studies of the gum and of its carboxyl-reduced derivative 1965, XVIII, 28
 Vitamin A, esters, Diels-Alder addition products of 1963, XVI, 22

W

- Water. The systems p-dioxan-sulphuric acid-water and p-dioxan-sulphuric acid-phosphoric acid-water at 25° 1966, XIX, 45
 Water vapour, the adsorption of, on silica-alumina treated with potassium chloride 1966, XIX, 122
 Wool, hypophosphite as a reducing agent for the disulphide linkage in 1963, XVI, 31
 Wool, the action of ultraviolet light on 1964, XVII, 44

X

- X-ray fluorescent method, a universal, for the quantitative analysis of non-metallics 1965, XVIII, 71

Y

- Ysterpentakarboniel (O), die bepaling, van in 'n gasstroom 1964, XVII, 38

Z

- Zinc (II) complexes, and mercury (II) complexes with primary aromatic amines: infrared spectra and bonding 1967, XX, 113
 Zirconium, the determination of, in South African granite 1965, XVIII, 13

AUTHORS INDEX

B

- Backeberg, O. G. see Van Es, T. 1964, XVII, 95
 Basson, R. A. see van der Linde, H. J. 1967, XX, 149
 Basson, S. S. see Bok, L. D. C. 1966, XIX, 62
 Blair, J. McD., Stephen, A. M. and (in part) Shaw, D. H. Virgilia Oroboides Gum. Part V. Periodate oxidation studies of the gum and of its carboxyl-reduced derivative 1965, XVIII, 28
 Bok, L. D. C., Leipoldt, J. G., and Basson, S. S. Sianokomplekse (Cyanocomplexes) 1966, XIX, 62
 Bok, L. D. C., Leipoldt, J. O., and Myburgh, J. L. Sianokomplekse Deel II. (Cyanocomplexes, Part II) 1967, XX, 197
 Botes, D. P. and Joubert, J. The purification of formol diphtheria toxoid by column chromatographic fractionation 1964, XVII, 1

- Botes, D. P. see Joubert, F. J. 1964, XVII, 44
 Botes, D. P. see van der Walt, S. J. 1967, XX, 32
 Brandt, P. J. see Steyn, W. J. A. 1965, XVIII, 92
 Brink, C. v. d. M., Dekker, J. J., Hanekom, E. C., Meiring, D. H. and Rall, G. J. H. Neorautanenia Isoflavanoids — Part I. The inter-conversion of neodulin and dehydroneotene 1965, XVIII, 21
 Brink, C. v. d. M., Nel, W., Rall, G. J. H. Weitz, J. C. and Pachler, K. G. R. Neorautanenia Isoflavanoids — Part II. Neofolin and ficinin, two new furoisoflavanoids from *Neorautanenia Ficifolia* (Benth ex Harv) C.A., S. M. 1966, XIX, 24
 Brink, C. v. d. M. see van Rensburg, N. J. J. 1965, XVIII, 56
 Brink, C. v. d. M. see van Rooyen, G. F. 1967, XX, 54
 Brümmerhoff, S. see Serfontein, W. J. 1963, XVI, 22
 Buijs, K. and van Wyk, J. A. An infrared study of cyanide complexes of cobalt on anion-exchange resins 1963, XVI, 1
 Burns, M. A. C. see Joubert, F. J. 1967, XX, 161
 Butler, L. R. P. see Strasheim, A. 1964, XVII, 55
- C**
- Churms, Shirley, C. The effect of pH on the ion-exchange properties of hydrated alumina. Part I. Capacity and selectivity 1966, XIX, 98
 Churms, Shirley C. The effect of pH on the ion-exchange properties of hydrated alumina. Part II. Kinetics of exchange 1966, XIX, 108
 Churms, S. C. see Hanley, M. B. 1967, XX, 92
 Clark, F. L., Clur, D. A. and Fogel, R. A method for determining the best values of three parameters in a kinetic equation containing two independent and one dependent variable 1963, XVI, 11
 Clur, D. A. see Clark, F. L. 1963, XVI, 11
 Cooper, D. R. see Davidson, R. J. 1967, XX, 69
 Cruywagen, J. J. see Rohwer, E. F. C. H. 1964, XVII, 145
 Cruywagen, J. J. see Rohwer, E. F. C. H. 1963, XVI, 26
 Cruywagen, J. J. see Rohwer, E. F. C. H. 1966, XIX, 11
- D**
- Davies, H. L. The systems p-dioxan-sulphuric acid-water and p-dioxan-sulphuric acid-phosphoric acid-water at 25° 1966, XIX, 45
 Davidson, R. J. and Cooper, D. R. The sub-unit composition of acid-soluble collagen 1967, XX, 69
 Dekker, J. J. see Brink, C. v. d. M. 1965, XVIII, 21
 De Fabrizio, Fabrizio The spectrometric determination of diphenhydramine (β -dimethyl-amino-ethyl benzhydryl ether) in a cough mixture 1967, XX, 194
 Den Hertog, H. J. see Pieterse, M. J. 1964, XVII, 41
 De Villiers, Daphne B. see Strasheim, A. 1963, XVI, 5
 De Villiers, P. A. see Pretorius, D. M. 1965, XVIII, 48
 De Vries, M. J. and Smit, J. H. Adsorptive properties of cellulose acetate. Part I. Adsorption of aliphatic alcohols 1967, XX, 11
 De Vries, M. J. see Smit, J. H. 1967, XX, 144
 De Wet, W. J. Determination of gas solubilities in water and some organic liquids 1964, XVII, 9
 De Wet, W. J. see Turkstra, J. 1967, XX, 200

Dry, M. E. and Ferreira, L. C.	The structural promotion of reduced magnetite ..	1966, XIX, 115
Dry, M. E., Leuteritz, G. M. and van Zyl, W. J.	Surface areas of and carbon dioxide adsorption on reduced iron catalysts	1963, XVI, 15
Du Preez, J. G. H. and Sadie, F. G.	Hexamethylphosphoramide and octamethyl-pyro- phosphoramide complexes of tetravalent metal chlorides	1966, XIX, 73
Du Toit, Engela, H., van Rensburg, N. N. J. and Swanepoel, O. A.	Determination of the thiol content of insoluble proteins	1965, XVIII, 52
Eloff, J. N. and Grobelaar, N.	Isolation and characterization of N-methyl-L- alanine, a novel amino acid from gifblaar (<i>Dichapetalum Cymosum</i>)	1967, XX, 190
Engelbrecht, D. J., Scholtz, H. v. Z. and van den Berg, J. P.	Die bepaling van ysterpentakarboniel (O) in 'n gasstroom. (The determination of iron (O) carbonyl in a gas stream)	1964, XVII, 38
Enslin, P. R.	see Holzapfel, C. W.	1964, XVII, 142
F		
Ferreira, L. C.	see Dry, M. E.	1966, XIX, 115
Fogel, R.	see Clark, F. L.	1963, XVI, 11
G		
Garbers, C. F. Goosen, A., Kaplan, E. R. and Osry, M. A.	see van der Merwe, J. P.	1964, XVII, 149
Gricius, A. J.	The alkaloids of the leguminosae. Part II. Hofmann degradative studies on calpurnine from <i>Cal- purnia Subdecandra</i>	1966, XIX, 57
Grobelaar, N. Grobler, A. H. and van den Berg, J. A.	'n Vinnige en direkte bepaling van magnesium op chromietertse en verwante vuurvaste materiaal met E.D.T.A. (A rapid and direct determina- tion of magnesium in chrome ores and chrome refractories with E.D.T.A.)	1965, XVIII, 100
	see Eloff, J. N.	1967, XX, 190
	'n Kinetiese ondersoek van die ontbinding van die trioksalatomanganaat - (III)-ioon' volgens 'n polarografiese metode. (A kinetic study of the decomposition of the trioxalato manganate- (III)-ion according to a polarographic method)	1965, XVIII, 6
H		
Haasbroek, F. J. Haigh, J. M., van Dam, M. A. and Thornton, David, A.	see Marais, P. G.	1966, XIX, 1
Hall, P. G. and Mureinik, R. J.	Studies on complexes and ligands. Part II. Com- plexes of mercury (II) and zinc (II) with primary aromatic amines. Infrared spectra and bonding	1967, XX, 113
Hanekom, E. C.	The adsorption of water vapour on silica-alumina treated with potassium chloride	1966, XIX, 123
	see Brink, C. v. d. M.	1965, XVIII, 21

- Hanley, M. B.,
Churms, S. C. and
Lelsegang, E. C.
Harrison, G. S.
Haylett, T.
Haylett, T.
Holzapfel, C. W.
and Enslin, P. R.
Holzapfel, C. W.
- Kinetics of ion exchange on a weak acid resin .. 1967, XX, 92
The torpedo friction test for explosives .. 1964, XVII, 14
see Joubert, F. J. .. 1964, XVII, 44
see Swart, L. S. .. 1967, XX, 132
- Bitter principles of the cucurbitaceae. Part XIV.
The constitutions of curcubitacins G and H .. 1964, XVII, 142
see Steyn, P. S. .. 1967, XX, 186
- J**
- Jordaan, J. H.
Joubert, F. J.,
Botes, D. P. and
Haylett, T.
Joubert, J.
Joubert, F. J.
and Burns, M. A. C.
- see Serfontein, W. J. .. 1963, XVI, 22
- The action of ultra-violet light on wool .. 1964, XVII, 44
see Botes, D. P. .. 1964, XVII, 1
- The fractionation of the high-sulphur proteins of
reduced merino wool by column chromatography .. 1967, XX, 161
see Steenkamp, D. J. .. 1967, XX, 81
see Swart, L. S. .. 1967, XX, 132
see v.d. Walt, S. J. .. 1967, XX, 32
- The purification of physicochemical properties of a
 β -glucosidase from sweet almonds .. 1964, XVII, 79
- K**
- Kaplan, E. R.
Keppler, H. H. and
Turkstra, J.
Kilroe-Smith, T. A.
- see Goosen, A. .. 1966, XIX, 57
- Trace impurities in a sample of natural glycerine .. 1963, XVI, 51
Studies in the metabolism of fungi. Part II. A
viscometric method for the assay of the
enzyme hydrolyzing the 1,4- β -glucosidic linkage
in cellulose (Cx-enzyme) .. 1965, XVIII, 79
- L**
- Liebenberg, C. J. and
Schöning, F. W. G.
- Liebenberg, C. J.
Leipoldt, J. G.
Leipoldt, J. G.
Leisegang, E. C.
Leisegang, E. C.
Leisegang, E. C.
Leisegang, E. C.
Leonard, J. D.
- Co-ordination compounds of titanium tetrahalides
with quinoline and isoquinoline .. 1967, XX, 57
see Schöning, F. W. G. .. 1967, XX, 61
see Bok, L. D. C. .. 1966, XIX, 62
see Bok, L. D. C. .. 1967, XX, 197
see Hanley, M. B. .. 1967, XX, 92
see Mears, G. E. F. .. 1967, XX, 16
see Mears, G. E. F. .. 1966, XIX, 93
see Mears, G. E. F. .. 1966, XIX, 130
- The colorimetric determination of phosphorus in
fertilizers .. 1964, XVII, 101
see Dry, M. E. .. 1963, XVI, 15
- The extraction of the neutral and anionic complexes
of nitrosyl-ruthenium by long-chain
alkyl amines .. 1967, XX, 174
see Swanepoel, O. A. .. 1963, XVI, 31
see van Rensburg, N. J. J. .. 1965, XVIII, 56
- M**
- Marais, P. G.,
Haasbroek, F. J.,
v.d. Lotz, E. and
v. R. Smit, J.
Mears, G. E. and
Leisegang, E. C.
- Half-life of barium-137M .. 1966, XIX, 1
- The rotational fine structures of the infrared
fundamentals ν_3 and ν_8 of monodeuteromethane .. 1967, XX, 16

Mears, G. E. F. and Leisegang, E. C.	High resolution infrared studies of monodeutero- methane and trideuteromethyl chloride ..	1966, XIX, 130
Mears, G. E. F., Parkyn, D. G. and Leisegang, E. C.	The rotational fine structure of the ν_2 parallel infrared band of monodeuteromethane ..	1966, XIX, 93
Meiring, D. H. Mellet, P. and Swanepoel, O. A.	see Brink, C. v.d. M.	1965, XVIII, 21
Miller, L. Morrison, I. (in part) Mureinik, R. J. Myburgh, J. L.	A column chromatographic method for the deter- mination of lanthionine Instabilities in multi-component liquid diffusion .. see Van Es, T. see Hall, P. G. see Bok, L. D. C.	1965, XVIII, 41 1966, XIX, 125 1964, XVII, 95 1966, XIX, 123 1967, XX, 197
N		
Nel, W. Norval, E. Norval, E. Norval, S.	see Brink, C. v. d. M. see Strasheim, A. see Strasheim, A. Die invloed van alumina op die toestand van polimerisasie in gesmelte kaliumfosfaat. (The influence of alumina on the degree of polymerisation in condensed potassium phosphate)	1966, XIX, 24 1964, XVII, 55 1967, XX, 25 1966, XIX, 6
O		
Osry, M. A.	see Goosen, A.	1966, XIX, 57
P		
Pachler, K. G. R. Pachler, K. G. R. and Wessels, P. L.	see Brink, C. v.d.M. The nuclear magnetic resonance spectrum of 1 α ,2 α -O-isopropylidene-3 β -O-4 β -cyanotetrahy- drofuran — 1 α ,2 α ,3 β -triol	1966, XIX, 24 1966, XIX, 49 1966, XIX, 93
Parkyn, D. G. Peisach, M.	see Mears, C. E. F. The preparation of potassium hexacyano-cobaltate (III) labelled with cobalt-58 and -60 for hydrological studies	1965, XVIII, 1
Peisach, M. and Poole, D. O.	The determination of cold coating thicknesses by proton scattering	1965, XVIII, 61
Pieterse, M. J. and den Hertog, H. J.	Aminations of bromo-pyridines and bromo-ethoxy- pyridines	1964, XVII, 41
Pieterse, M. J. Plug, C. and v. Niekerk, J. N.	see van Rooyen, G. F. A universal X-ray fluorescent method for the quan- titative analysis of non-metallics	1967, XX, 54 1965, XVIII, 71
Poole, D. O. Pretorius, D. M. and de Villiers, P. A.	see Peisach, M. The reaction of pyridine-1-oxide with acetic anhydride	1965, XVIII, 61 1965, XVIII, 48
Pretorius, V.	see van Berge, P. C.	1964, XVII, 122, 133
R		
Rall, G. J. H. Rall, G. J. H. Rohwer, E. F. C. H. and Cruywagen, J. J.	see Brink, C. v.d.M. see Brink, C. v.d.M. The ionization constants of monomeric molybdic acid	1965, XVIII, 21 1966, XIX, 24 1963, XVI, 26
Rohwer, E. F. C. H. and Cruywagen, J. J.	The first protonation constant of monomeric molybdic acid	1964, XVII, 145
Rohwer, E. F. C. H. and Cruywagen, J. J.	Monomeric chloro-complexes of molybdenum (VI)	1966, XIX, 11

S

- Sadie, F. G. see du Preez, J. G. H. 1966, XIX, 73
- Schabort, J. C. A study of the differences in some kinetic properties of lactic dehydrogenase isolated from normal and neoplastic human lung tissues 1967, XX, 43
- Schabort, J. C. Lactic dehydrogenase from human lung inhibition by certain water-soluble ciliastatic components of tobacco smoke 1967, XX, 103
- Scholtz, H. v.Z. see Engelbrecht, D. J. 1964, XVII, 38
- Schöning, F. W. G. and Liebenberg, C. J. Geometrical isomerism and stability of tetrachlorobisquinoline-titanium (IV) and tetrachlorobisisoquinoline-titanium (IV) 1967, XX, 61
- Schöning, F. W. G. see Liebenberg, C. J. 1967, XX, 57
- Schröder, H. H. E. see Serfontein, W. J. 1966, XIX, 38
- Schutte, C. E. G. Die bepaling van zirkonium in Suid-Afrikaanse graniete. (The determination of zirconium in South African granite) 1965, XVIII, 13
- Serfontein, W. J. and Schröder, H. H. E. Potential inhibitors of cancerous growth. Part VI. The application of the Mannich reaction in the synthesis of nitrogen mustard derivatives . . 1966, XIX, 38
- Serfontein, W. J., Brümmerhoff, S. and Jordaan, J. H. Diels-Alder addition products of vitamin A esters see Blair, J. McD. 1963, XVI, 22
- Shaw, D. H. Quantitative spectrochemical analysis of some igneous rocks 1965, XVIII, 28
- Siedner, G. 1964, XVII, 29
- Smit, J. H., Smith, J. H. and De Vries, M. J. Adsorptive properties of cellulose acetate. Part II. Adsorption of aromatic hydrocarbons and haloforms 1967, XX, 144
- Smit, J. H. see De Vries, M. J. 1967, XX, 11
- Smith, J. H. see Smit, J. H. 1967, XX, 144
- Steenkamp, D. J. and Joubert, F. J. The microheterogeneity of amadin 1967, XX, 81
- Stephen, A. M. see Blair, J. McD. 1965, XVIII, 28
- Steyn, P. S. and Holzapfel, C. W. The isolation of the methyl and ethyl esters of ochratoxins A and B metabolites of *Aspergillus Ochraceus* wilh. 1967, XX, 186
- Steyn, W. J. A. and Brandt, P. J. The spectrographic determination of trace elements in citrus leaves 1965, XVIII, 92
- Strasheim, A. and De Villiers, Daphne B. A rapid method for the semi-quantitative analysis of powdered samples 1963, XVI, 5
- Strelow, F. W. and van Zyl, C. R. The separation of uranium from other elements by ion exchange chromatography 1967, XX, 1
- Strasheim, A., Norval, E. and Butler, L. R. P. The atomic absorption determination of traces of lead in fish flour 1964, XVII, 55
- Strasheim, A., Strelow, F. W. and Norval, E. Determination of barium and strontium in maize meal and bread flour by atomic absorption spectrometry after separation by ion exchange chromatography 1967, XX, 25
- Strelow, F. W. E. A separation of scandium from yttrium, lanthanum and the rare earths by anion-exchange chromatography of the sulphate complexes 1964, XVII, 114

Strelow, F. W. E.	The separation of uranium from scandium, yttrium, rare earths, thorium, beryllium, magnesium, copper, manganese, iron, aluminium and other elements by cation-exchange chromatography	1963, XVI, 38
Strelow, F. W.	see Strasheim, A.	1967, XX, 25
Swanepoel, O. A. and Louw, D. F.	Hypophosphite as a reducing agent for the disulphide linkage in wool, cystine, and oxidized glutathione	1963, XVI, 31
Swanepoel, O. A.	Die gebruik van die „lengtemodulus” by die ondersoek van die kruisbindingsdigtheid van proteïene. (The use of the “length modulus” in the investigation of the cross-link density of proteins)	1963, XVI, 55
Swanepoel, O. A.	Reduction of cystine and peptide-bound disulphides by hypophosphite and ultraviolet light	1963, XVI, 48
Swanepoel, O. A.	see Mellet, P.	1965, XVIII, 41
Swanepoel, O. A.	see Du Toit, Engela H.	1965, XVIII, 52
Swanepoel, O. A.	see van Rensburg, N. J. J.	1965, XVIII, 87
Swart, L. S., Joubert, F. J. and Haylett, T.	A comparative study of the proteins of adult mohair, kid mohair and kemp	1967, XX, 132
Swart, E. R.	see van Gent, P. K.	1966, XIX, 85
T		
Thornton, D. A.	Derivatives of 1,2,3,4-tetrahydroarsinoline	1964, XVII, 61
Thornton, D. A.	The application of lithium arsenides to the synthesis of cyclic-compounds of arsenic and a novel spirocyclic arsonium salt	1964, XVII, 71
Thornton, D. A.	Studies on complexes and ligands. Part III. p,p'-disubstituted derivatives of diphenyl, diphenyl ether and α,ω -diphenylalkanes	1967, XX, 123
Thornton, D. A.	see Haigh, J. M.	1967, XX, 113
Toerien, P. V. S.	see Turkstra, J.	1967, XX, 200
Turkstra, J.	see Keppler, H. H.	1963, XVI, 51
Turkstra, J., Toerien, P. V. S. and De Wet, W. J.	Bepaling van vanadium in 'n natriumchloriedbasis met neutronaktiveringsanalise. (Determination of vanadium in a sodium chloride base by neutron activation analysis)	1967, XX, 200
V		
van Berge, P. C. and Pretorius, V.	The use of gas chromatography for the determination of certain column parameters	1964, XVII, 133
van Berge, P. C. and Pretorius, V.	Sources of error in the experimental determination of the plate height for gas-liquid chromatography	1964, XVII, 122
van Dam, M. A.	see Heigh, J. M.	1967, XX, 113
van den Berg, J. A.	see Grobler, A. H.	1965, XVIII, 6
van der Berg, J. P.	see Engelbrecht, D. J.	1964, XVII, 38
van der Linde, H. J. en Basson, R. A.	Die relatiewe belangrikheid van die primêre ioniese prosesse in die γ -radiolise van n-propanol. (The relative importance of the primary ionic processes in the γ -radiolysis of n-propanol)	1967, XX, 149
van der Lotz, E.	see Marais, P. G.	1966, XIX, 1
van der Merwe, J. P. and Garbers, C. F.	Photochemical oxidation of 3-methylfuran	1964, XVII, 149

van der Walt, S. J., Joubert, F. J. and Botes, D. P.	A physiochemical study of the plant β -glucosidase, elaterase	1967, XX, 32
van der Walt, T. N. van Es, T., Backeberg, O. G. and (in part) Morrison, I.	see Joubert, F. J.	1964, XVII, 79
van Gent, P. K. and Swart, E. R.	Some sulphonamido-derivatives of stilbene and acetophenone	1964, XVII, 95
van Niekerk, J. N. van R. Smit, J.	The reaction of vanadium (V) oxinate and ethanol in dilute concentration in benzene	1966, XIX, 85
van R. Smit, J. van Rensburg, N. N. J., Brink, C. v.d.M. and Louw, D. F.	see Plug, C.	1965, XVIII, 71
van Rensburg, N. N. J. van Rensburg, N. N. J. and Swanepoel, O. A.	Purification of rubidium compounds from traces of caesium	1964, XVII, 138
	see Marais, P. G.	1966, XIX, 1
	The oxidation of cystine and some derivatives ..	1965, XVIII, 56
	see du Toit, Engela H.	1965, XVIII, 52
	Unsymmetrical disulphides containing cysteine. Part I. The formation of 3-carboxy-4-nitro- thiophenol derivatives of cysteine and gluta- thione and their decomposition by alkali ..	1965, XVIII, 87
van Rooyen, G. F., Pieterse, M. J. and Brink, C. v.d.M.	The chemistry of Cotyledon Wallichii Harv. (Kandelaarbos) Part I. The isolation of betuli- genol and betuloside	1967, XX, 54
van Wyk, J. A. van Zyl, C. R. van Zyl, W. J.	see Buijs, K.	1963, XVI, 1
	see Strelow, F. W.	1967, XX, 1
	see Dry, M. E.	1963, XVI, 15
W		
Weltz, J. C. Wessels, P. L.	see Brink, C. v.d.M.	1966, XIX, 24
	see Pachler, K. G. R.	1966, XIX, 49

CITY PRINTING WORKS (PTY.) LTD., BANK STREET, PIETERMARITZBURG

